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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,428	11/22/2000	Gerhard Pfaffinger	HAS-009.01	2876

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EXAMINER
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GRIER, LAURA A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/721,428	Applicant(s) PFAFFINGER ET AL.	
	Examiner Laura A. Grier	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 4,6-8,12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/14/05</u><br><u>L.A.G.</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. The indicated allowability of claims 2-6, and 9 is withdrawn in view of the newly discovered reference(s) to Jyosako. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jyosako, U.S. Patent No. 5657391.

Regarding claim 1 and 10, Jyosako discloses sound image enhancement apparatus. Jyosako disclosure comprises two loudspeakers, a left and right signal that are input into a circuit, which may be replaced with a digital signal processor, with the circuit (processor) the signals are subjected to phase shifting (phase shifters) and level adjustments (attenuation), each processed signal is added to together to be output via the loudspeakers (abstract, col. 14, lines 18-38, col. 10, lines 34-38, 43-50, and figures 1-2), which reads on a least two loudspeakers, a signal processing device, wherein the signal processing device weights the input signals, therein.

Regarding claim 2, Jyosako discloses everything claimed as applied above (see claim 1). Jyosako discloses the claimed limitations in figure 1 and col. 11, lines 30-49.

Regarding claim 3, Jyosako discloses everything claimed as applied above (see claim 1). Jyosako discloses the claimed limitations in figure 1 and (col. 11, lines 30-67 and col. 12, lines 1-67, col. 13, lines 1-31).

Regarding claim 5, Jyosako discloses everything claimed as applied above (see claim 1). Jyosako discloses adjustable phase shifting (col. 11, lines 30-67 and col. 12, lines 1-67, col. 13, lines 1-31).

4. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Williams, U. S. Patent No. 3757046.

Regarding claim 11, Williams discloses a sound system including a plurality of speakers and control signal generating device. Williams discloses indicates four loudspeakers, stereophonic inputs which are processed are adjusted in phase and amplitude, and the processed signals are weighted and output to the respective loudspeakers (figure 1-3, col. 2, lines 51-68 – col. 3, lines 1-44, col. 8, lines 53-68 and col. 9, lines 1-16 or col. 10, lines 51-68 – col. 11, lines 1-12).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jyosako.

Regarding claim 9, Jyosako discloses everything claimed as applied above (see claim 1). However, Jyosako fails to disclose two additional loudspeakers, therein as claimed. The use of multiple loudspeakers in various techniques such as in sound enhancement was well known in the art. Thus, it would have obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Jyosako implementing two additional loudspeakers with the same process for the purpose of enhancing the stereo sound quality of a particular listening environment.

7. Claims 4, 6-8, and 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.


The applicant essentially argues that prior art of record, Date and Derogis et al. failed to disclose the teachings of "weight input signal differently with respect to amplitude and phase. New references of prior art have been applied in the rejection above which discloses processing input signals differently in respect to various amplitude and phase adjustments, therein as claimed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Laura A Grier  
Primary Examiner  
Art Unit 2644

January 21, 2006